

Date: Wed, 9 Nov 94 04:30:48 PST  
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>  
Errors-To: Ham-Space-Errors@UCSD.Edu  
Reply-To: Ham-Space@UCSD.Edu  
Precedence: List  
Subject: Ham-Space Digest V94 #316  
To: Ham-Space

Ham-Space Digest                      Wed, 9 Nov 94                      Volume 94 : Issue 316

Today's Topics:

    Anyone receiving NOAA weather satellite transmissions  
        DSP-93  
        Ham Satellite  
        Omnidirectional Ant's  
        Satellite tracking software needed  
        STS-66 Element Set (94312.607)  
Where can I order a satellite photo of a city in Siberia? (2 msgs)

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>  
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Mon, 7 Nov 94 16:21:52 -0500  
From: drangmei@ll.mit.edu  
Subject: Anyone receiving NOAA weather satellite transmissions

I am looking to build a image display section for NOAA APT format images.  
Unfortunately, I don't currently have a receiver capable of acquiring the  
satellite transmission (although I hope to get one in the not to distant  
future).  
In the mean time, I would love to get my hands on an audio cassette recording  
of the 2400 Hz AM tone from a few satellite passes so that I can start working  
on an image display unit.  
If anyone is interested in helping me out it would be very much appreciated.  
I would of course supply the cassette and pay postage to and from anywhere in  
the US.

Thanx,

Rick D.  
drangmei@ll.mit.edu  
(617)981-3460

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Date: 8 Nov 94 18:06:23 GMT  
From: ROBERTSM@JSC.MIL  
Subject: DSP-93

Has anyone on the net used the AMSAT/TAPR DSP-93 system for satellite and terrestrial work? I would be interested in your opinion of the DSP-93.

73 Mel W3MR robertsm@jsc.mil

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Date: Tue, 8 Nov 1994 15:19:54 GMT  
From: zlau@arrl.org (Zack Lau (KH6CP))  
Subject: Ham Satellite

Jonathan Ho (jho@xilinx.COM) wrote:

: Hi there,

: I'd like to share some of the thought with you guys on the net about the  
: futhre ham satellites. I always hear from satellite hams say that LEO sat  
: is easy to work and is good for a short contact. OSCAR-13 is good for DX and  
: long QSO and  
: however, it is not easy to work (expensive equipment and tracking etc) and  
: signal is always weak.

: Since there are a lot of commerical geostationary  
: satellites on the orbits, is it possible that we hams can build reasonable  
: ERP small size transponders placing in the commercial satellites to share  
: some common facilities such as solar panels on the commercial sat platforms?  
: If this can be done, several ham sats can be linked so that a reliable world  
wide  
: ham sat network can be formed.

The signal are weak because of distance. A LEO at 500 miles is 32 dB stronger because of the inverse square law. You can compensate for this with spot beams, if you don't mind sacrificing coverage. But, if you have to cover the entire earth, you are limited to roughly 20 dBi gain. Thus, you need lots of watts (many solar panels) to get the ERP up so that people on the ground can use small VHF antennas for receive.

Or, you could use a little dish with a preamp at the feed for 2.4 GHz. The sky noise is much quieter at microwaves.

(BTW, 32 dB is the difference between a legal limit station in the USA and a 1 watt QRP station--people spend lots of \$\$ to achieve this--many radios would be cheaper if everyone were satisfied with 1 watt)

But, this doesn't quite solve the uplink problem--how people will access the satellite with small antennas and low power. The satellite receiver is hampered by the warm Earth (ground stations get to look at cold sky), so the trick of going to a quiet microwave band doesn't quite work.

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Zack Lau KH6CP/1                      2 way QRP WAS  
   8 States on 10 GHz  
Internet: zlau@arrl.org    10 grids on 2304 MHz

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Date: Tue, 8 Nov 1994 13:18:19  
From: n7ryw@teleport.com (William Roth)  
Subject: Omnidirectional Ant's

In article <39d7qv\$2hb@grissom.powerup.com.au> plove@powerup.com.au (Paul Love) writes:

>From: plove@powerup.com.au (Paul Love)  
>Subject: Omnidirectional Ant's  
>Date: 4 Nov 1994 12:01:35 GMT

>Greetings All, I've always wanted to get involved in Amateur satellites ,  
>but the cost has always deterred me. However i've seen designs in ARRL  
>H/book for "turnstile" antenna's. This would allow me to "get my feet wet"  
>, but here's the question : Is there anyone out there ACTUALLY using such  
>antenna's ?

I used one for many years, while I was in an apartment, and I had very good results. Pay close attention to the spacing between the elements and the ground. This has a big effect on the pattern. For a non-rotated antenna, I think 3/8 wave spacing was good.

To be able to transmit, be careful with the phasing line used. A simple 1/4 wave on one dipole is fine for receiving, but gives a higher SWR on TX. I can send you a drawing of a good feed setup, or you can try trimming the elements to get it down.

I mentioned this antenna once before here, and it was clear to me that many did not understand it, so be careful of misinformation!

See-Ya-Bye!  
Bill,    n7ryw@teleport.com

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Date: Tue, 8 Nov 1994 17:38:17 +0000  
From: zeus@myth.demon.co.uk (Mike Cowgill)  
Subject: Satellite tracking software needed

In article <vLfkkClgnovE055yn@helix.net>  
gkennedy@helix.net "Geoff L. Kennedy" writes:

> If it turns out that I have to join, what does membership "get" me  
> (besides the stuff I'm after in the first place).....I'm not a Ham radio  
> operator, so I don't have any real interest in those satellites. It  
> also seems that it's a bit pricey.....somewhere I heard \$80 US (or was

I don't know about Amsat US, but Amsat-UKs subscription is about 15 gbp  
a year. This gets you 6 copies of Oscar News. What is left (very little) goes  
to the new satellite fund. Despite being a licensed amateur, I have never  
transmitted through the birds but feel that nevertheless it is only right  
that I contribute to the facilities I use.

Mike.

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Michael S. Cowgill (Mike) \\_ " ....Cracking toast Gromit!.... "  
zeus@myth.demon.co.uk (That's me) \\_ Royal Blue Dragon  
G1VOX@GB7WRG.GBR.EU 44.131.2.76 \\_ -==(UDIC)==-

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Date: Tue, 8 Nov 1994 15:30:45 GMT  
From: elements-request@alsys.com (Shuttle Elements)  
Subject: STS-66 Element Set (94312.607)

STS-66  
1 23340U 94073A 94312.60790007 .00237193 10343-4 75414-3 0 66  
2 23340 56.9901 175.2045 0015178 296.4108 63.5408 15.91549666 794

Satellite: STS-66  
Catalog number: 23340  
Epoch time: 94312.60790007 = (08 NOV 94 14:35:22.56 UTC)  
Element set: 006  
Inclination: 56.9901 deg  
RA of node: 175.2045 deg Space Shuttle Flight STS-66  
Eccentricity: .0015178 Keplerian element set JSC-006  
Arg of perigee: 296.4108 deg from NASA flight Day 6 vector  
Mean anomaly: 63.5408 deg

Mean motion: 15.91549666 rev/day                      Gil Carman  
Decay rate: 2.37193e-03 rev/day^2                    NASA Johnson Space Center  
Epoch rev: 79

This data is also available via the Shuttle Elements Mailing List. For more information about the list and how to subscribe, send a message to with only the command "info elements" in the body of your message to "listserv@alsys.com".

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Gary Morris                      Internet: garym@alsys.com  
Alsys Inc.                      Packet: KK6YB @ N0ARY.#NOCAL.CA.USA.NA  
San Diego, CA, USA              Phone: +1 619-457-2700 x128 (voice/fax)

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Date: Mon, 7 Nov 1994 23:30:57 GMT  
From: craig@nanny.rosemount.com (Craig Taylor)  
Subject: Where can I order a satellite photo of a city in Siberia?

I want to know where I can order a satellite photo of a city in Siberia (Krasnoyarsk).

Sorry for the cross posting, I picked groups where readers might have the knowledge.

Years ago I ordered a photo of US city through the mail. I can't remember who I ordered it through, and I believe the organization changed its mission later anyway.

Any help appreciated.  
Email is fine for replies.

--

Craig F. Taylor  
craig@rosemount.com  
Minneapolis Minnesota  
Work (612) 895-2254

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Date: 8 Nov 1994 13:47:37 GMT  
From: rao@ctd.comsat.com (Ashok Rao)  
Subject: Where can I order a satellite photo of a city in Siberia?

You can try SPOT Image at 703-620-2200 (10 meter resolution). A cheaper source

may be Russian imagery. I know that TRW is selling those. A contact in TRW in California is Liz Greenberg - product manager. I dont have her ph number

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Ashok Rao  
COMSAT Labs  
22300 Comsat Drive  
Clarksburg, MD 20871  
Ph. 301-428-4079  
Fax 301-428-9287  
email rao@ctd.comsat.com

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: --

: Craig F. Taylor  
: craig@rosemount.com  
: Minneapolis Minnesota  
: Work (612) 895-2254

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End of Ham-Space Digest V94 #316

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